

# Lighting and Controls Supplier Summit: Partnering for Results



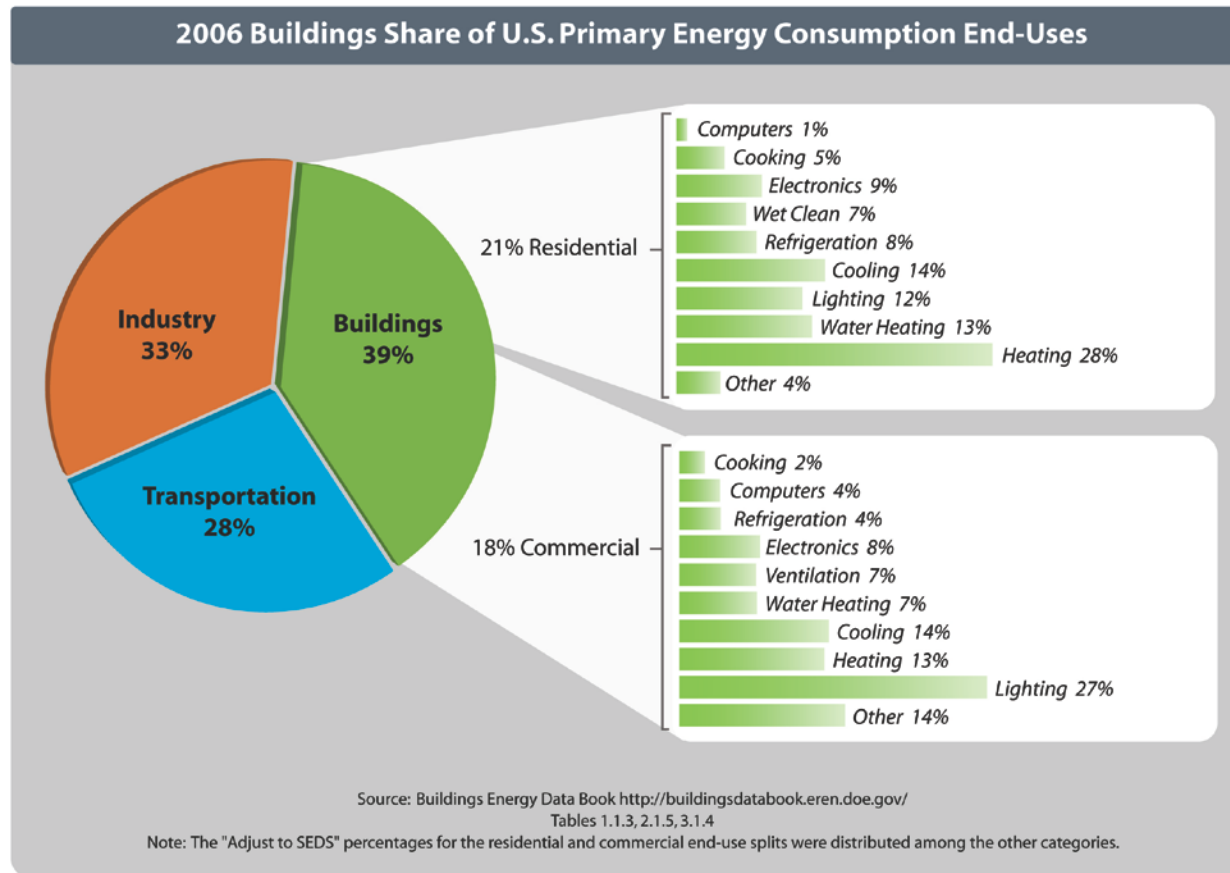
Lighting and Controls Supplier Summit  
Las Vegas, NV  
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Brian Holuj  
U.S. Department of Energy  
Energy Efficiency and  
Renewable Energy

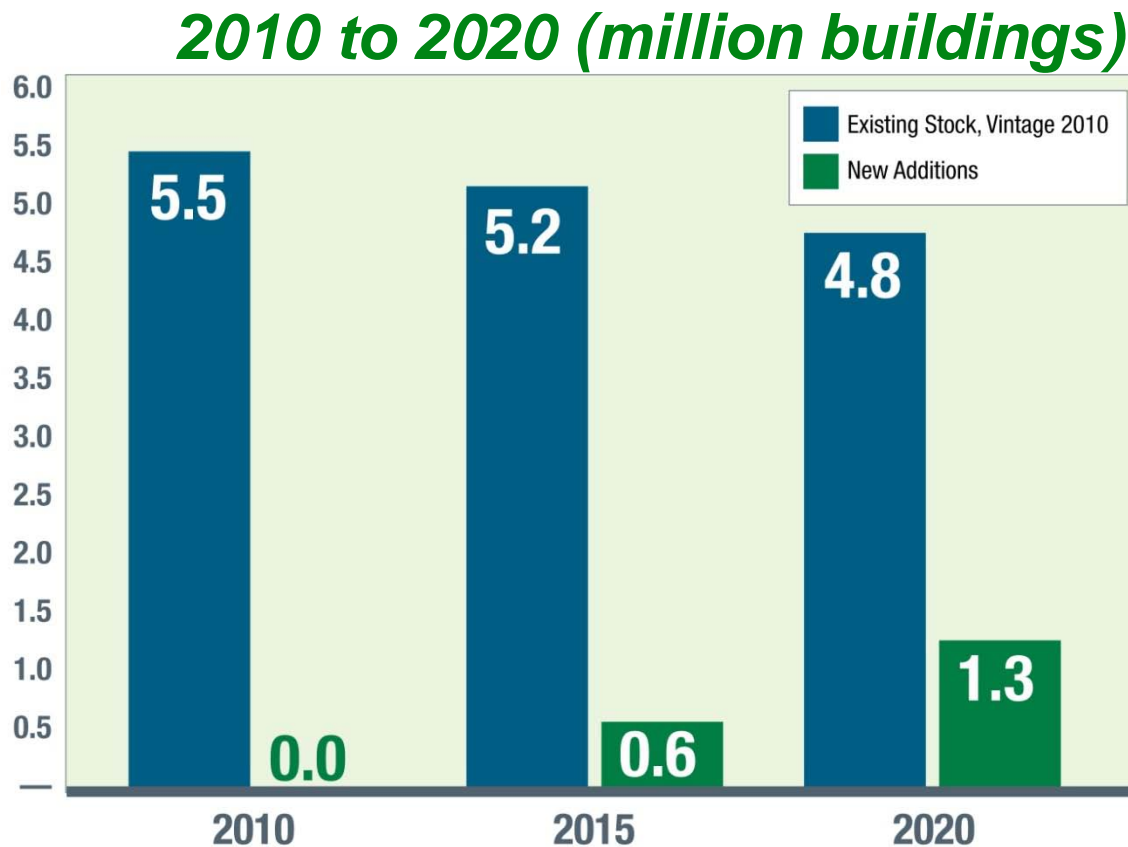
- 5 million commercial buildings, comprising more than 82 billion sq. ft. of floor space
- Commercial buildings account for:
  - 18% of U.S. energy
  - 18% of greenhouse gas emissions (~1,000 MMT of CO<sub>2</sub>e)
  - slightly less than India's entire energy consumption and GHG emissions



**Commercial Building**  
Energy Alliances

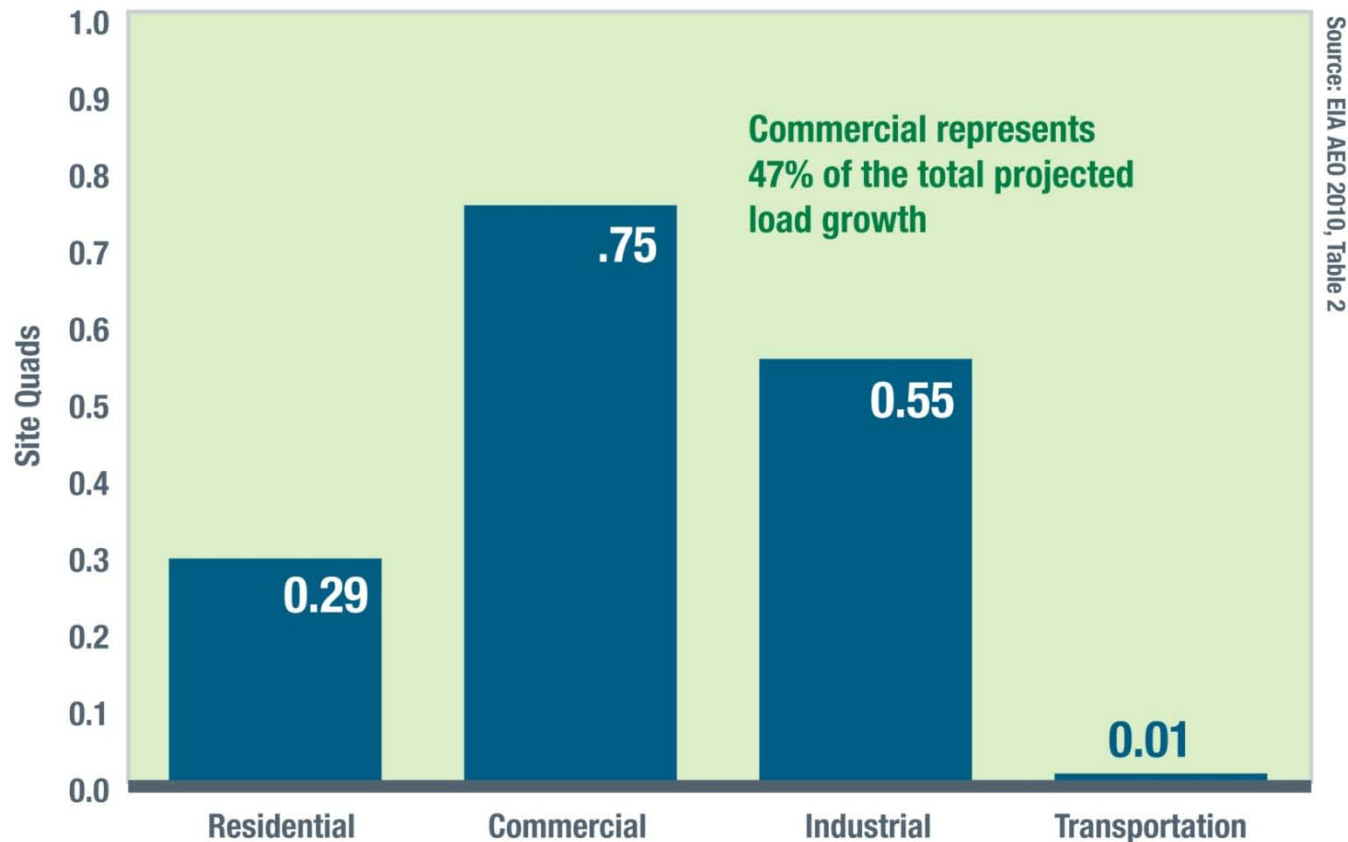


# Projected Existing Stock and New Additions



Source: EIA's Annual Energy Outlook 2010, Table 5.

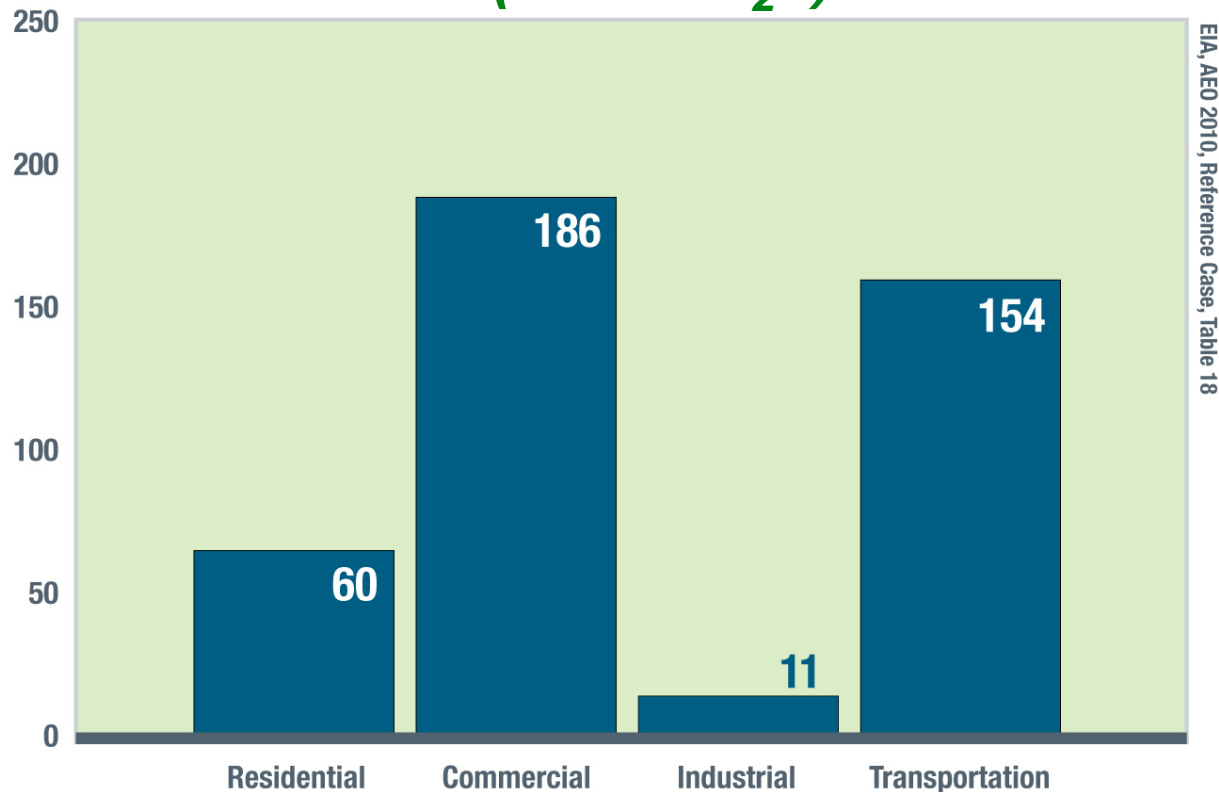
## *2010 to 2020, by End-Use Sector (site quads\*)*



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# Projected Increase in Carbon Dioxide Emissions

## 2008 to 2030, by End-Use Sector (MMTCO<sub>2</sub>e)\*



- High first costs
- Lack of detailed business cases
- Quality and reliability concerns
- Dearth of customizable strategies for design, installation, control and commissioning
- Workforce capabilities: A&E firms, construction crews, and O&M teams unfamiliar with latest tech



## ***EISA 2007***

- *established Net-Zero Energy Commercial Building Initiative*
- *requires existing federal buildings to use 50% less energy by 2015*

## ***American Recovery and Reinvestment Act of 2009***

- *set aside \$16.8 billion for energy efficiency and renewable energy*
- *\$2.5 billion of that allocated to Applied Research, Development, Demonstration, and Deployment*

## ***Executive Order 13514***

- *requires federal buildings to meet sustainability targets*

## ***American Clean Energy and Security Act (in Senate)***

- *would require increased stringency of ASHRAE 90.1: 30% now; 50% by 2016*
- *would establish incentive-based retrofit program for energy savings*



*Enabling significant improvements in the energy performance of new and existing commercial buildings throughout the U.S.*

**MANDATES:**

Energy Independence and Security Act of 2007  
U.S. GHG Targets



**STRATEGY:**

Public-private partnerships to accelerate widespread adoption of advanced building technologies and best practices



**ACTIVITIES:**

Market Outreach, Engagement and Demonstration  
High Performance Building Package R&D

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- DOE's National Labs directly assist with commercial building projects to achieve significant energy savings
  - Replicable design, construction, and commissioning solutions
  - Verified results
  - Business case
- 18 ongoing partnerships
- New partners being selected through Recovery Act-funded competitive solicitation [www.nrel.gov/cbp](http://www.nrel.gov/cbp)



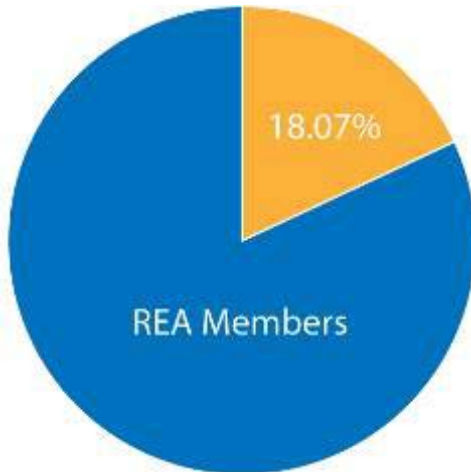
*Informal associations among building owners and operators who want to reduce energy consumption*

## Goals

- Share best practices, energy-use measurement, and benchmarking
- Advance the business case for energy-efficient buildings
- Deploy advanced technologies through specifications and information-sharing
- Drive down costs by working with manufacturers and suppliers on the collective need for energy-efficient products and technologies: [Supplier Summits](#)

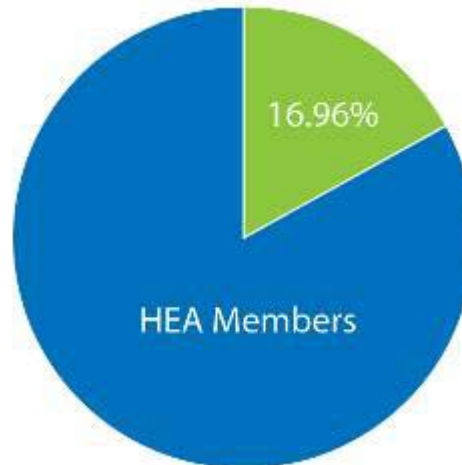
# Market Share of Alliance Members

## Retailer Energy Alliance



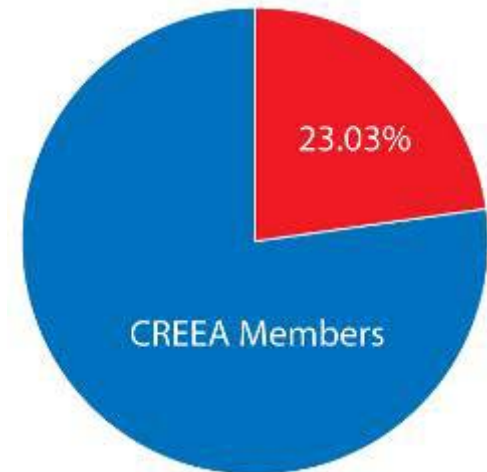
- 48 member companies
- 2.548 billion sq. ft.

## Hospital Energy Alliance



- 34 member companies
- 323 million sq. ft.

## Commercial Real Estate Energy Alliance



- 52 member companies
- 5.856 billion sq. ft.

- Inform suppliers and manufacturers of CBEA members' short-term and long-term energy reduction targets
- Discuss ongoing projects of the CBEAs and national energy labs
- Address specific challenges to implementing lighting and controls energy efficiency strategies
- Continue the conversation between commercial building owners and operators and manufacturers and suppliers of lighting and controls

# Thanks!

**Brian Holuj**

Building Technologies Program

U.S. Department of Energy

[Brian.Holuj@ee.doe.gov](mailto:Brian.Holuj@ee.doe.gov)

DOE Building Technologies Program

[buildings.energy.gov](http://buildings.energy.gov)

Commercial Building Initiative

[commercialbuildings.energy.gov](http://commercialbuildings.energy.gov)

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